Course Title: Superconducting Magnet Division Specific Information for Mechanical Assembly (Process/Operation)

Course Number AM-ENV-FS4

Because this work activity has been identified as having significant potential to impact the environment, this material has been compiled to provide you with the job-specific information that you must know to protect the environment. Please read the following carefully. If you have any questions concerning the material, contact your supervisor, ES&H Coordinator or the Environmental Compliance Representative.

You may print this material as a handout and use it as a reference aid.
This specific training course is linked to your job-training assessment (JTA). You must read and acknowledge this material as part of the qualification to perform mechanical assembly work. Please fill out the Read and Acknowledgement form at the end of the course material and return it promptly to your Training Coordinator.

Environmental Process Evaluation Title: Environmental Training for Mechanical Assembly Operations

Environmental Aspect: These are the process you do the can impact the environment: Regulated Industrial Waste, Hazardous Waste, Atmospheric Discharges, Storage and Use of Chemicals, Water Consumption

Contacts for the Information (current contacts are found on the Division's ESHQ Web page):

Environmental Compliance Rep
Facility Support Rep
ES&H Coordinator
Training Coordinator

Job Training Assessment Links: AM-06, AM-28, AM-29, AM-33, AM-39 (Superconducting Magnet)

Course Objective: **Because your work activities have been identified as having significant potential to impact the environment, this course has been designed to provide you with the job-specific information that you must know to protect the environment.**

1) What potential impacts to the environment are associated with your activities?

- Soil contamination from improper disposal (i.e. oily rags in normal garbage).
- Using non-approved chemicals that can damage the environment (i.e. halogenated spray solvents that damage the ozone layer).
- Soil contamination from equipment failure (i.e. oil-water heat exchangers – Building 924)

2) What consequences may result if your operations were to impact the environment?

- Regulatory noncompliance, fines, violations.
- Disciplinary actions for willful violations.
- Loss of permits to use hoods.
- And possible shutdown of facility.

3) What benefits or positive effects would you notice with improved environmental performance ?

- Satisfying compliance requirements.
- More money for building magnets because of reduced disposal costs.
- Less clean up expense for Dept.
- Avoid NYS or EPA violations/fines.
- Good work practices.

4) What role and responsibility do you have for these potential impacts and environmental performance?

- To ensure Industrial wastes are handled according to lab procedures
- To take action when controls fail (such as calling x2222 if spills occur).
- Notify ESH Coordinator or ECR if unexplained loss of oil has been discovered.
- To contact supervision if you are unsure of how to perform the work or if the procedures are unclear or incorrect
- Complete log books at permitted points of emission.
- To suggest possible Pollution Prevention ideas.
- Follow applicable requirements in the following SBMS Environmental Compliance Subject Area (http://sbms.bnl.gov)
  - Hazardous Waste Management (Section 1)
  - Non-Radiological Airborne Emissions (Section 2)

5) What controls or procedures are implemented to reduce the potential for emergency?

- Bldg. 924 Curing Processes – splash shields to prevent oil leaks; internal procedures (AM-OPM 8.1.1.28, AM-OPM 8.1.1.29, AM-OPM 8.1.1.38); vacuum pump bag filter and operational log.
- High level indicators on oil reservoirs/automatic shut off for pump.
- Satellite Accumulation Area
- Secondary containment for liquid chemicals
- Chemical Management System
- Tier I inspections.

6) How would you respond in an emergency to reduce the potential for environmental impact and what actions could be taken to mitigate? (Refer to existing procedures and documents (i.e. the Local Emergency Plan) where applicable)

- If loss of oil is suspected, contact ESH Rep or ECR for assistance.
- No specific emergency scenario is likely but, as Laboratory requirements state, call x2222 if an emergency does occur.

7) What pollution prevention and waste minimization techniques have been or could be considered to reduce or eliminate the potential to impact the environment?

- Recycle cardboard, wood and scrap metal.
- Evaluate less hazardous substitutes for solvents.
- Inventory, consolidate and reallocate unused chemicals.

Suggestions or comments about pollution prevention or waste minimization are always welcome by SMD management.

8) Are there any key Environmental-specific Competency Requirements (Experience, Education, Qualification) for this position?

- Hazardous Waste Generator (HP-RCRIGEN3) (for supervisors only)
- Environmental Protection Training (GE-ENV-GET)

Click Here to Fill Out Reading Acknowledgment Form